

REMARKS

Reconsideration and allowance of the Claims of the present invention is respectfully requested. Claim 2 has been cancelled. Claims 1 and 2-14 have been amended above. Claims 8, 9, 14 and 15 are withdrawn from consideration, but since they depend on Claim 1 when Claim 1 is allowed all Claims should be allowable.

Rejection Under 35 U.S.C. 102(b)

Claims 1, 4, 10 and 12 are again rejected under 35 U.S.C. 102(b) as being anticipated by Hendren et al (U.S. Patent 4,886,578).

Independent Claims 1, 10, and 12 have now been amended to recite a binder up to about 20% by weight of the saturable nonwoven material. Claim 4 contains the same limitation because it depends on Claim 1. This amendment has been made to further distinguish over Hendren et al and to highlight the improvement of the present invention over comparison Example 4 in the present application.

In contrast, Hendren et al discloses a material that, when it contains any MPD-I fibrils (which is a binder), it must contain at least 35 wt % MPD-I. More specifically, Hendren et al discloses an oil-impregnatable insulating board comprising a plurality of web layers of (i) 35-60 wt % aromatic polyamide fibrous material, preferably MPD-I, and (ii) 40-65 wt % PTFE floc. Preferably, 0-20% of the fibrous material is MPD-I floc and at least 35 wt % of the fibrous material is MPD-I fibrils. The fibrils are a binder. When the Hendren et al material is made to contain at least 35 wt % of MPD-I fibril binder, the material (both the board and each web layer in the board) is not porous enough to then be saturable or impregnatable by a resin.

Example 4 of the present invention shows this. In Example 4, a nonwoven material was made within the scope of Claim 1 except additionally containing 30 wt % binder (20 wt % meta-aramid fibrils plus 10 wt % resin). The resulting material could not then be impregnated with resin "due to the high content of the binder in the formed sheet." See the last paragraph on page 15 of the application. **When the material is made to contain binder and the binder exceeds about 30%, the binder containing material is not**

resin impregnatable. If the percentage by weight of fibrils and/or (binder) resin added as binder is too large, the binder closes or blocks the pores of the material so a (matrix) resin can't later impregnate and saturate the material.

The Examiner stated the words "resin impregnatable" were given no patentable weight because they were in the preamble. We do not agree with the Examiner's belief that the limitation can be ignored as previously presented. However, in reply, Claims 1, 10 and 12 have been amended to move the limitation from the preamble to the body of the Claims. They now recite a saturable nonwoven material comprising "a resin impregnable structure". Since Hendren et al does not disclose, or make obvious, this limitation, all Claims should now be patentable. Support for this amendment is found on page 2, line 22 of the subject application plus page 10, line 17-18 of the application.

The Examiner argues that the Hendren et al material is not precluded from being resin impregnatable. When the Hendren et al material contains binder, i.e., MPD-I fibrils, it must contain at least 35 wt % MPD-I fibrils (binder). As shown by Example 4 in the present invention, when at least about 30 wt % binder is included in the material, each layer of the material is not porous enough to be resin impregnatable as recited in the present invention. Therefore, each layer of the Hendren et al material is not porous enough to be resin impregnable.

In view of these differences, it is respectfully submitted that this rejection is overcome and should be withdrawn.

Rejection Under 35 U.S.C. 103(a)

Claims 2, 3, 5-7, 11 and 13 are rejected under 35 U.S.C. 103(a) as being unpatentable over Hendren et al (U.S. Patent 4,886,578) in view of Gross (U.S. Patent 3,756,908).

The Examiner states that Hendren et al does not show a binder. This is incorrect. Hendren et al clearly teaches the use of a binder. The MPD-I fibrils disclosed by Hendren et al are binder. As such, contrary to the present invention, Hendren teaches that when a binder is used, it must be present in an amount of at least 35 wt % of the material, Claims 1 and 10, and

all Claims dependent directly or indirectly thereon including Claims 3-9, 11, 14, and 15 now recite up to about 20 wt % binder. Claim 13 recites about 19 wt % binder (i.e., about 10% by weight of a meta-aramid fibrid; and about 9% of a resin).

Since the Examiner believed that Hendren et al does not disclose a binder, the Examiner relies upon a second reference, Gross, as showing a binder in nonwoven sheet structures made of aromatic polyamide fibrids and short aromatic polyamide fibers. Gross does not cure the deficiencies of Hendren et al.

Unlike the present invention and the Hendren et al publication, the Gross material does not contain at least one fluoropolymer floc. Since the paper disclosed in Gross does not contain the fluoropolymer floc, i.e., one of the two non-binder ingredients recited in the present Claims, one skilled in the art would not look to Gross to determine if a binder would be useful in the present invention, or what binder would be useful in the present invention, or how much binder would be useful in the present invention; as such, the invention as now recited is clearly not obvious in view of either (or any combination of both) of the applied references.

Further, in utilizing Gross as a secondary reference, the Examiner is picking and choosing one teaching from Gross and ignoring all other differences between Hendren et al and the earlier published Gross disclosure to argue that it would have been obvious to change the concentration of binder disclosed by Hendren et al to be critical, but not change any other of the numerous features disclosed in Hendren et al that contradict Gross. This does not make sense. If it were obvious, since Hendren et al was published later in time, Hendren et al would not have stated that, when binder is included, it must have at least 35 wt %.

As such, it is respectfully submitted that this rejection is overcome and should be withdrawn.

Conclusion

The foregoing reasons are believed to comprise a full and complete response to the outstanding non-final Examiner's Office Action. Further, it is

submitted that any basis for the rejections of the Claims has been obviated. Thus, Claims 1-15 are respectfully submitted to be in condition for allowance. Favorable reconsideration with subsequent allowance of Claims 1-15 is respectfully requested. If any matter remains to be resolved before allowance, the Examiner is encouraged to call Applicants' attorney at the number provided below.

Respectfully submitted,



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Dated: February 2, 2004